

<b>Test report no.:</b> <i>Prüfbericht Nr.:</i>	<b>AU23I68M 001</b>	<b>Order No.:</b> <i>Auftrags-Nr.:</i>	<b>252106073</b>	Page 1 of 14 Seite 1 von 14
<b>Client Reference No.:</b> <i>Kunden-Referenz-Nr.:</i>	<b>2006171</b>	<b>Order date:</b> <i>Auftragsdatum</i>	<b>28-Nov-2023</b>	
<b>Client:</b> <i>Auftraggeber:</i>	WE-EF Lighting Pty Ltd 6/13 Downard Street, Braeside, VIC 3195, Australia			
<b>Test item:</b> <i>Prüfgegenstand:</i>	LED streetlight			
<b>Identification/ Type No.:</b> <i>Bezeichnung / Typ-Nr.</i>	102-8000; 102-0157; 102-0202; 102-0247; 102-0911			
<b>Order content:</b> <i>Auftrags-Inhalt:</i>	AEMO load test			
<b>Test specification:</b> <i>Prüfgrundlage:</i>	LCP Power Measurement			
<b>Date of sample receipt:</b> <i>Wareneingangsdatum:</i>	24-Nov-2023			
<b>Test sample No.:</b> <i>Prüfmuster-Nr.:</i>	A003612619-001 ~ 010			
<b>Testing period:</b> <i>Prüfzeitraum:</i>	28-Nov-2023 - 08-Dec-2023			
<b>Place of testing:</b> <i>Ort der Prüfung:</i>	TUV Rheinland Australia Pty Ltd			
<b>Testing laboratory:</b> <i>Prüflaboratorium:</i>	TUV Rheinland Australia Pty Ltd			
<b>Test result*:</b> <i>Prüfergebnis*:</i>	Samples were submitted for measurements only. No compliance limits.			
<b>tested by:</b> <i>geprüft von:</i>	<b>authorized by: /</b> <i>genehmigt von:</i>			
<b>Date:</b> 19-Dec-2023 <i>Datum:</i>	Libo Shen/ <i>Libo Shen</i>	<b>Issue Date:</b> 19-Dec-2023 <i>Ausstellungsdatum:</i>	Billy Chu/ <i>Billy Chu</i>	
<b>Position / Stellung:</b>	Expert	<b>Position / Stellung:</b>	Expert	
<b>Other /</b> <i>Sonstiges:</i>	-Refer to "Remarks" on page 2 for details.			
<b>Condition of the test item at delivery:</b> <i>Zustand des Prüfgegenstandes bei Anlieferung:</i>	Test item complete and undamaged			
* Legend:	P(ass) = passed a.m. test specification(s)	F(ail) = failed a.m. test specification(s)	N/A = not applicable	N/T = not tested
* Legende:	P(ass) = entspricht o.g. Prüfgrundlage(n)	F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
<p><b>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</b>  <i>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</i></p>				

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<b>Remarks</b>	

<b>1</b>	The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.
<b>2</b>	As contractually agreed, this document has been signed digitally only. TUV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TUV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged.
<b>3</b>	Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report. Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.
<b>4</b>	The decision rule for statements of conformity in this test report is based on the “Zero Guard Band Rule” and “Simple Acceptance” in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report.
<b>5</b>	This test report is based on assessment and tests applied to the specific test item(s) as submitted by the client. TÜV Rheinland Australia disclaims any and all responsibility or obligation for any other item.
<b>6</b>	This test report (No. AU23I68M 001) covers below assessment according to client request. <ul style="list-style-type: none"> <li>• LCP test was conducted on 10 fittings of LED street light sample models <b>102-8000; 102-0157; 102-0202; 102-0247; &amp; 102-0911.</b></li> </ul>

**History of revision:**

N/A

**Options/accessories/ancillary equipment:**

The equipment was tested without any optional accessory installed. Hence, this report does not cover parameters that are influenced by the installation of optional accessory that might affect safety in the meaning of this standard.

**Uncertainty of equipment used:**

Equipment	Equipment No.	Range used	Uncertainty	Calibration Due Date
Digital Power Meter Model: WT310E	9054591	Voltage: 300V	±0.05V	02-May-2024
		Current: 0.5A-1A	±0.33mA - ±0.0006A	
		Power: 12.150W- 243.00W	±0.037W -±0.17W	

**Test procedure:**

The submitted test samples (consisted of the supplied lamp and control gear combination, if applicable) for the lamp circuit power consumption measurement were placed in a draught free room and at the laboratory condition (Ambient (20±5)°C, Relative Humidity (45–75)%) for 24 hours before and during the measurement. The test samples were connected to the power source and supplied with voltage and frequency as listed in “TABLE: Power Measurement”. The test samples were operated until the conditions of overall temperature equilibrium were established or at least 4 hours in stabilized operation with the supplied sources. Then the total power consumption measurements have been taken by power meter.

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<b>Product description</b>	

<b>1</b>	<b>Product details:</b>	<p>LED streetlight Trademark/ Manufacturer: <b>WE-EF</b></p> <p>Model: <b>102-8000</b> Ratings: 240Vac, 0.15A, 32W, CCT: 4000K, ta.: 40°C, IP 66, IK08, Class I</p> <p>Model: <b>102-0157</b> Ratings: 240Vac, 0.24A, 52W, CCT: 4000K, ta.: 40°C, IP 66, IK08, Class I</p> <p>Model: <b>102-0202</b> Ratings: 240Vac, 0.56A, 77W, CCT: 4000K, ta.: 40°C, IP 66, IK08, Class I</p> <p>Model: <b>102-0247</b> Ratings: 240Vac, 0.48A, 105.5W, CCT: 4000K, ta.: 40°C, IP 66, IK08, Class I</p> <p>Model: <b>102-0911</b> Ratings: 240Vac, 0.74A, 159W, CCT: 4000K, ta.: 40°C, IP 66, IK08, Class I</p>
<b>2</b>	<b>Dimensions / Weight:</b>	<p>All LED streetlights</p> <p>Approx. Length [mm] x Width [mm] x Height [mm]: 750x300x120</p> <p>Approx. Weight [kg]: 9.55</p>
<b>3</b>	<b>Operating elements:</b>	<p><b>Models 102-0247, 102-0157, 102-0202 &amp; 102-0911:</b></p> <p>Buit-in LED driver Trademark/ Manufacturer: TRIDONIC Model: LCO 165/200-1050/285 o4a NF C EXC3 Rating: 220-240Vac 50/60Hz, 220-240Vdc, U-OUT: 370V(HV), U-OUT: 240V(LV), Irated: 200mA-1050mA, Prated: 165W; λ:0.98</p> <p><b>Model 102-8000:</b></p> <p>Buit-in LED driver Trademark/ Manufacturer: TRIDONIC Model: LCO 90/200-1050/165 o4a NF C EXC3 Rating: 220-240Vac 50/60Hz, 220-240Vdc, U-OUT: 220V(HV), U-OUT: 130V(LV), Irated: 200mA-1050mA, Prated: 90W; λ:0.98</p>
<b>4</b>	<b>Equipment / Accessories:</b>	N/A
<b>5</b>	<b>Used materials:</b>	N/A
<b>6</b>	<b>Other:</b>	Test sample(s), as well sample information, description, product details and intended usage was provided by customer.
<b>7</b>	<b>Test sample obtaining:</b>	<input checked="" type="checkbox"/> Sending by customer <input type="checkbox"/> Sampling by TÜV Rheinland Group <input type="checkbox"/> others:

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**Product description**

<b>8</b>	<b>Model Variations:</b>	<p>Models 102-0247, 102-0157, 102-0202 &amp; 102-0911 are similar to each other except for the different drive current programmed into the LED driver (Tridonic, LCO 165/200-1050/285 o4a NF C EXC3).</p> <p>Model 102-8000 is similar to all other models but has a different LED driver (Tridonic, LCO 90/200-1050/165 o4a NF C EXC3).</p>
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TABLE: Power measurements

	Test Item	Supplied Voltage Average (V)	Frequency (Hz)	Measured Input Power Average (W)	Measured Apparant Power Average (VA)	Measured Input Current Average (mA)	Power Factor Average
1	102-8000	250.06	50	30.6400	35.2000	140.7500	0.8706
2	102-8000	250.07	50	30.8800	36.3700	145.4500	0.8488
3	102-8000	250.01	50	30.8300	35.5600	142.2200	0.8672
4	102-8000	250.01	50	30.8600	35.6000	142.3700	0.8668
5	102-8000	250.06	50	30.6300	35.4900	141.9200	0.8631
6	102-8000	250.06	50	30.7700	35.7300	142.8900	0.8612
7	102-8000	250.09	50	30.7600	35.5400	142.1300	0.8655
8	102-8000	250.05	50	30.7000	35.6300	142.4800	0.8616
9	102-8000	250.03	50	30.7100	35.7100	142.8000	0.8602
10	102-8000	250.00	50	30.9300	35.7500	143.0100	0.8651
Total average		<b>250.04</b>	50	<b>30.7710</b>	<b>35.6580</b>	<b>142.6020</b>	<b>0.8630</b>

	Test Item	Supplied Voltage Average (V)	Frequency (Hz)	Measured Input Power Average (W)	Measured Apparant Power Average (VA)	Measured Input Current Average (mA)	Power Factor Average
1	102-0157	250.03	50	53.3400	59.8640	239.4300	0.8910
2	102-0157	250.03	50	53.4230	59.7600	239.0100	0.8940
3	102-0157	250.05	50	53.2050	59.8390	239.3000	0.8891
4	102-0157	250.07	50	53.4280	59.8990	239.5300	0.8920
5	102-0157	250.07	50	53.2100	59.9990	239.9300	0.8868
6	102-0157	250.04	50	53.5060	59.8600	239.4000	0.8939
7	102-0157	250.07	50	53.1590	59.7500	238.9300	0.8897
8	102-0157	250.01	50	53.5150	60.0480	240.1900	0.8912

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**TABLE: Power measurements**

9	102-0157	250.00	50	53.4960	60.0380	240.1600	0.8910
10	102-0157	250.04	50	53.3930	59.9410	239.7360	0.8908
Total average		<b>250.04</b>	<b>50</b>	<b>53.3675</b>	<b>59.8998</b>	<b>239.5616</b>	<b>0.8910</b>

	Test Item	Supplied Voltage Average (V)	Frequency (Hz)	Measured Input Power Average (W)	Measured Apparant Power Average (VA)	Measured Input Current Average (mA)	Power Factor Average
1	102-0202	250.04	50	74.6600	79.9800	319.8600	0.9335
2	102-0202	250.12	50	74.6700	79.9800	319.7700	0.9336
3	102-0202	250.04	50	74.5000	80.0100	319.9800	0.9311
4	102-0202	250.12	50	74.9200	80.2500	320.8600	0.9336
5	102-0202	250.13	50	74.4500	80.0900	320.2200	0.9295
6	102-0202	250.14	50	74.8700	80.0300	319.9400	0.9355
7	102-0202	250.05	50	74.7800	80.0800	320.2600	0.9339
8	102-0202	250.08	50	74.6300	79.9100	319.5200	0.9340
9	102-0202	250.03	50	74.5800	79.8300	319.2900	0.9342
10	102-0202	250.03	50	74.5800	79.9600	319.8100	0.9327
Total average		<b>250.07</b>	<b>50</b>	<b>74.6640</b>	<b>80.0120</b>	<b>319.9510</b>	<b>0.9332</b>

	Test Item	Supplied Voltage Average (V)	Frequency (Hz)	Measured Input Power Average (W)	Measured Apparant Power Average (VA)	Measured Input Current Average (A)	Power Factor Average
1	102-0247	250.00	50	104.2000	108.6300	0.4345	0.9592
2	102-0247	250.19	50	104.3000	108.7800	0.4348	0.9588
3	102-0247	250.09	50	103.7000	108.3300	0.4331	0.9573
4	102-0247	250.21	50	104.0200	108.4900	0.4336	0.9588

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**TABLE: Power measurements**

5	102-0247	250.39	50	103.5600	108.2700	0.4324	0.9565
6	102-0247	250.01	50	104.4800	108.7900	0.4351	0.9604
7	102-0247	250.18	50	103.1700	107.6600	0.4303	0.9583
8	102-0247	250.05	50	103.6500	108.1000	0.4323	0.9588
9	102-0247	250.00	50	103.8200	108.2500	0.4330	0.9590
10	102-0247	250.0900	50	104.1000	108.5900	0.4342	0.9586
Total average		<b>250.12</b>	<b>50</b>	<b>103.9000</b>	<b>108.3890</b>	<b>0.4333</b>	<b>0.9586</b>

	Test Item	Supplied Voltage Average (V)	Frequency (Hz)	Measured Input Power Average (W)	Measured Apparant Power Average (VA)	Measured Input Current Average (A)	Power Factor Average
1	102-0911	250.10	50	157.5600	161.4500	0.6456	0.9759
2	102-0911	250.03	50	157.3200	161.3400	0.6453	0.9751
3	102-0911	250.11	50	157.7200	161.8200	0.6470	0.9746
4	102-0911	250.04	50	157.0000	160.9800	0.6438	0.9753
5	102-0911	250.09	50	156.7900	160.8200	0.6430	0.9749
6	102-0911	250.05	50	157.4200	161.2900	0.6450	0.9760
7	102-0911	250.04	50	156.3400	160.2500	0.6409	0.9756
8	102-0911	250.01	50	158.0300	161.9200	0.6477	0.9760
9	102-0911	250.04	50	158.2300	162.1200	0.6484	0.9760
10	102-0911	250.05	50	157.2100	161.2600	0.6449	0.9749
Total average		<b>250.05</b>	<b>50</b>	<b>157.3620</b>	<b>161.3250</b>	<b>0.6452</b>	<b>0.9754</b>

Marking

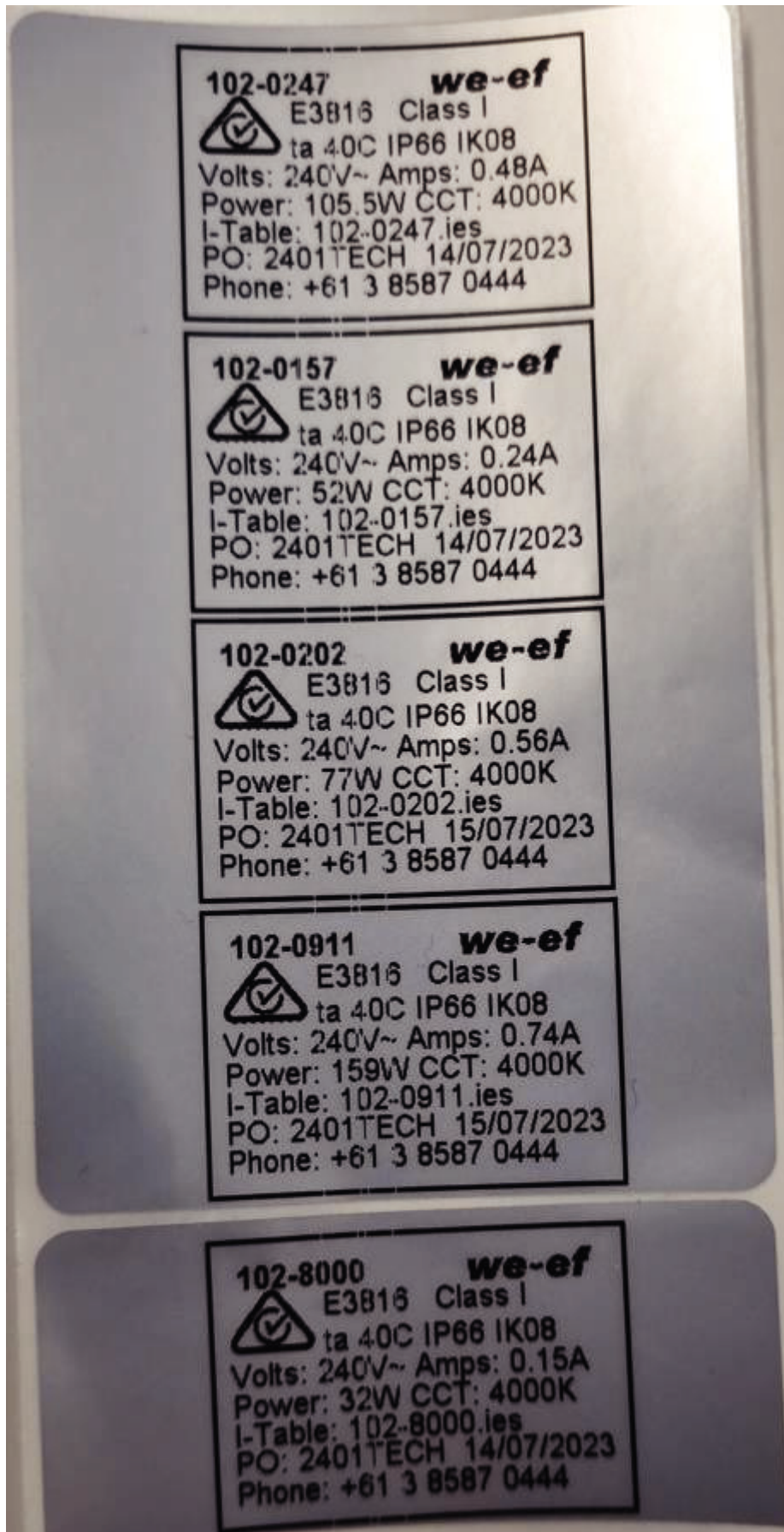
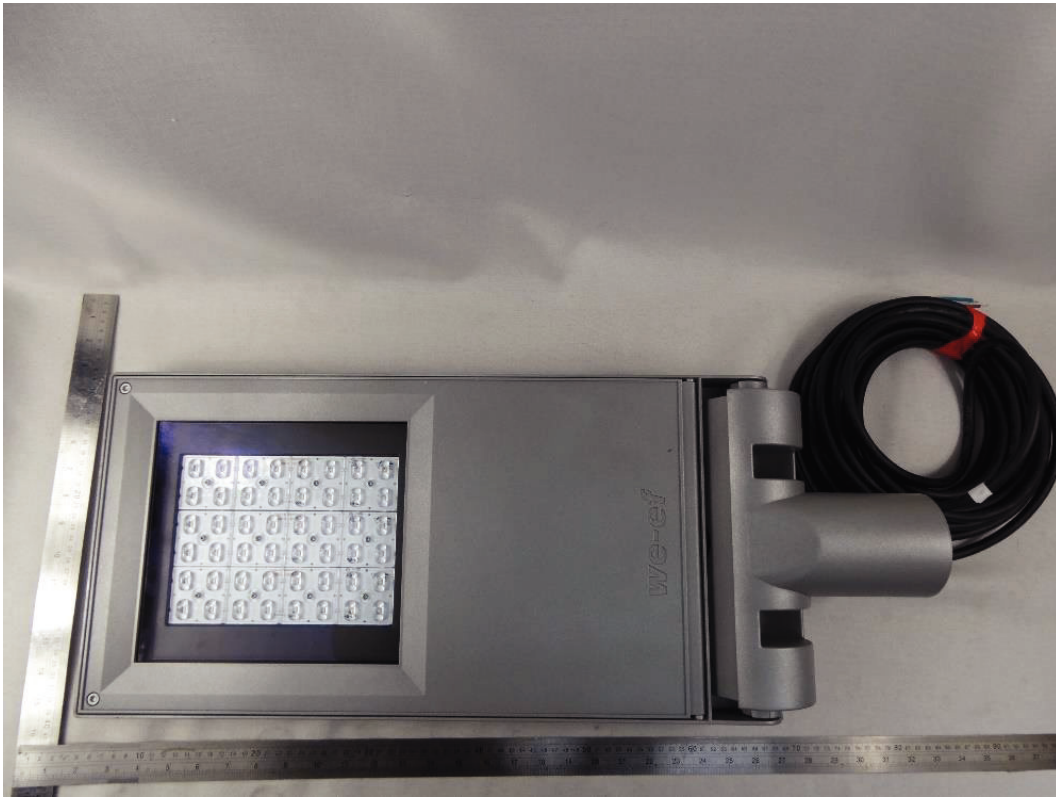




Photo documentation

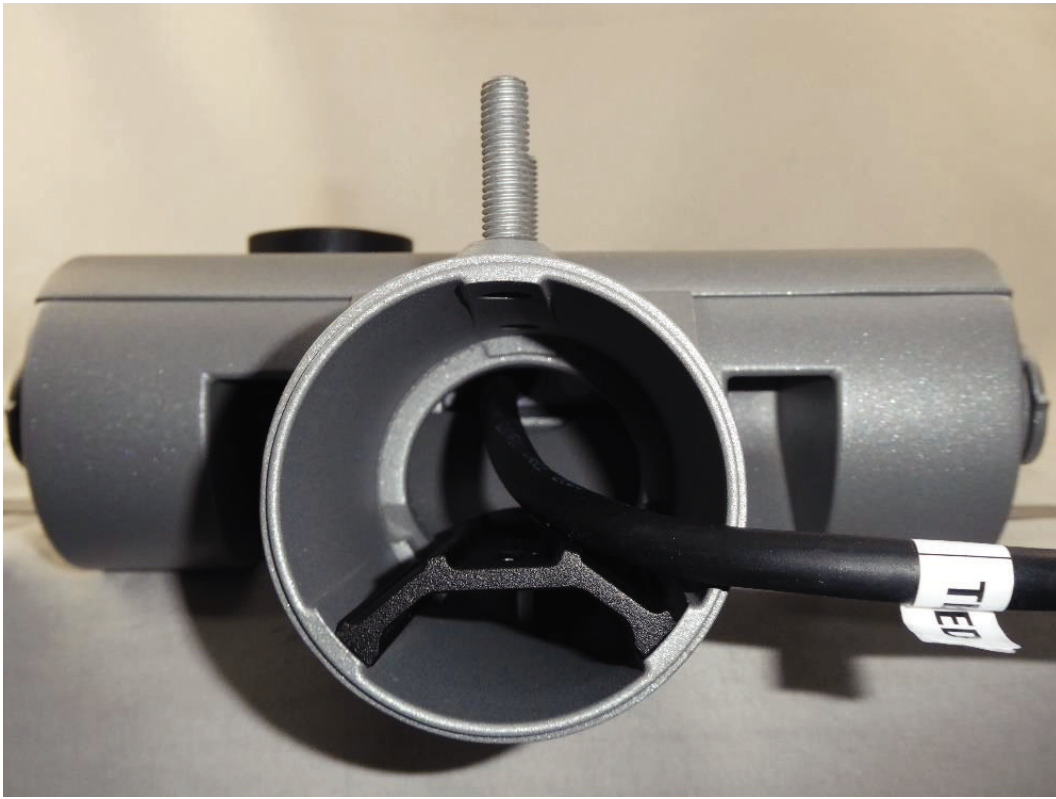


Product overview (model 102-0911)



Product overview (model 102-0911)

Photo documentation

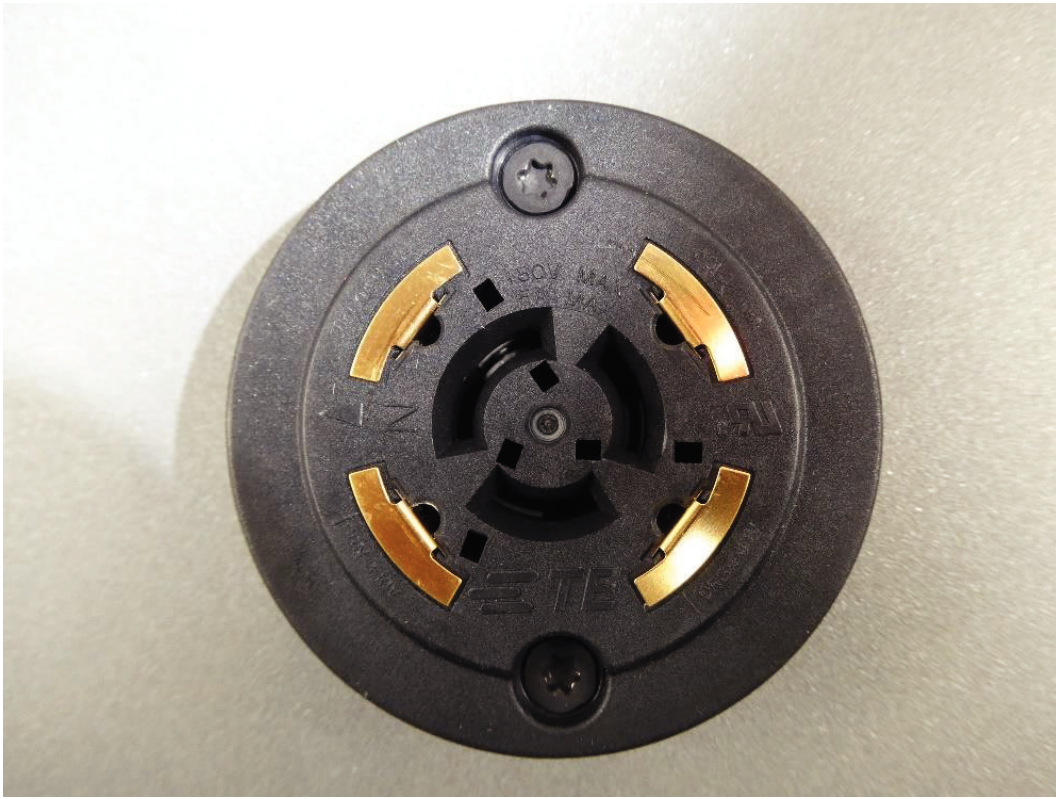


Product overview (model 102-0911)



LED light (model 102-0911)

Photo documentation



Shorting cap base (model 102-0911)

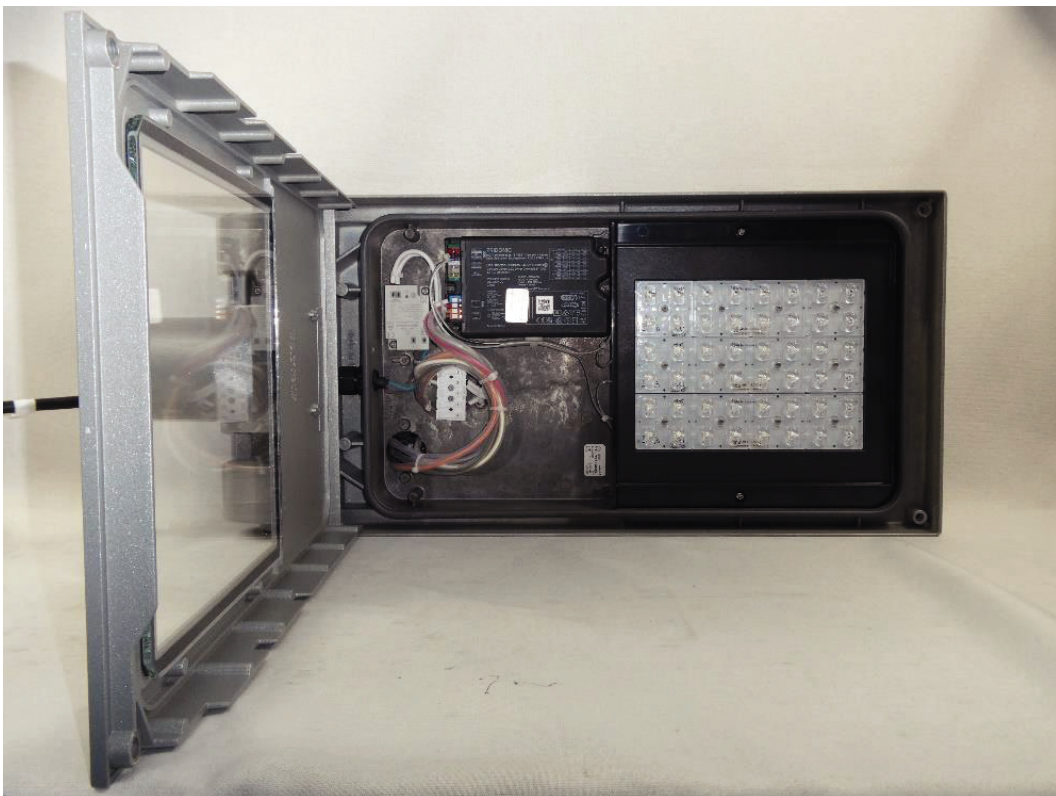


Shorting cap's bottom (model 102-0911)

Photo documentation



Shorting cap's sensor (model 102-0911)

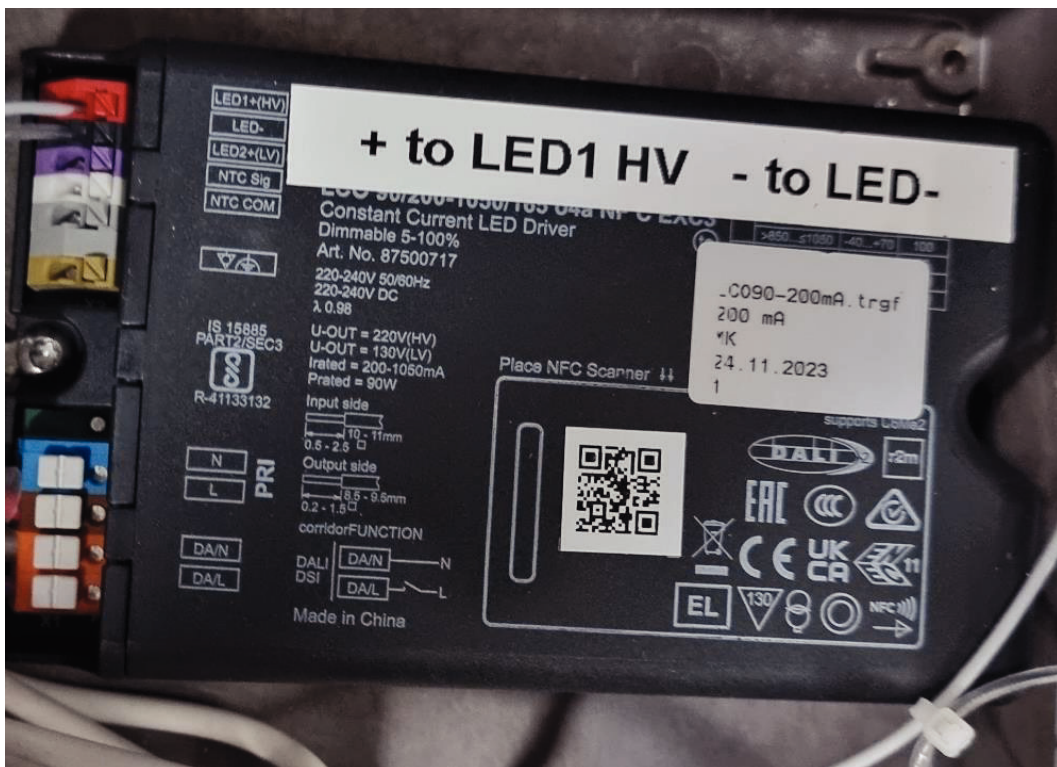


Electrical compartment overview (model 102-0911)

Photo documentation

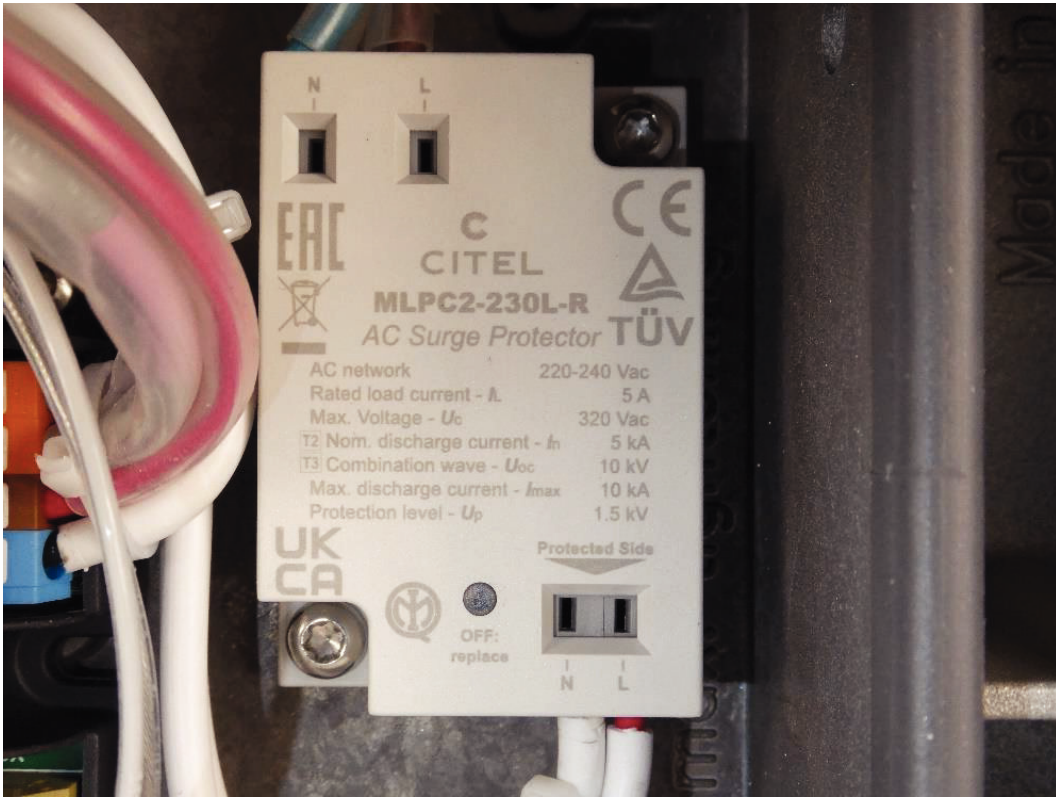


LED driver (Tridonic, LCO 165/200-1050/285 o4a NF C EXC3) (model 102-0911)



LED driver (Tridonic, LCO 90/200-1050/165 o4a NF C EXC3) (model 102-8000)

Photo documentation



AC surge protector (model 102-0911)



Supply cord (model 102-0911)

End of test report